Chapter Seven
FINANCIAL PROGRAM

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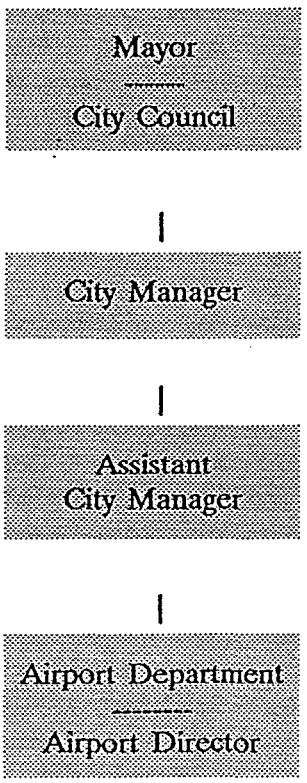
The analysis conducted in previous chapters has evaluated airport development needs based upon forecast activity changes, environmental factors, and operational efficiency. However, the most important element of the master planning process is the application of basic economic, financial, and management rationale to each development item so that the feasibility of implementation can be assured. In short, this chapter will concentrate on those factors which will help make the plan successful. Therefore, this section of the Master Plan will become the primary reference for decision makers and, consequently, it must provide full justification for each recommendation. Proper understanding of the effects of a decision, either for or against a recommendation, will be essential in maintaining a realistic and cost effective program that provides the maximum benefit to the community.

The program outlined on the following pages has been evaluated from a variety of perspectives. It is not dependent exclusively upon the City of Mesa for funding of recommended facilities. In fact, with proper and timely decision making on the part of responsible officials, it is quite possible for the City to acquire approximately $24.7 million in improvements at Mesa-Falcon Field Airport for about 23 cents on the dollar. Several factors apply to the above statement which must be fully understood by all parties involved.

AIRPORT MANAGEMENT PROGRAM

The successful implementation of this Airport Master Plan's recommendations will require an ongoing effort on the part of the City to maintain the facilities and anticipate the need for further development. A sound management system that can work to prevent problems, as well as adequately respond to problems that do occur, will be essential for a successful program.

The City of Mesa is established under the Mayor-City Council governmental system. An Airport Department has been established within the City's organizational structure. The Airport Department is organized as shown in the chart below.



In this management structure, the Airport Department is one of eight departments under the Assistant City Manager.

The City of Mesa has established one central Enterprise fund within the City's financial system. An enterprise fund is established for those municipal functions that are intended to be self-supporting through user charges to the general public. There are nine functions under the City's enterprise system of financial management: Airport Department, Water, Gas, Electric, Wastewater, Sanitation and Irrigation Systems, Aquatics, Golf Courses and the Mesa Community Center.

The Airport Director oversees the operation of the Airport Department, which includes three additional administrative personnel and four full time maintenance personnel. One additional maintenance employee is a part-time position. In comparison with other general aviation airports of similar size, the airport staff at Mesa-Falcon Field Airport is minimal. Consideration should be given to at least another full-time airport employee in the near future. This would greatly assist with maintenance and operations.

CAPITAL IMPROVEMENT PROGRAM

The initial step in establishing an airport development schedule is to determine the cost of each proposed improvement. Cost data used in this study was collected from a variety of sources, including published engineering indices, government agencies and similar airport construction projects in the area. Estimates for each planning period are based on 1992 dollars. A 25 percent contingency overhead for engineering, administration, and unforeseen circumstances has been included in the estimated component and total costs. In future years, as the plan is implemented, these cost presentations can continue to serve as management aids by adjusting the 1992-based figures for subsequent inflation.

This may be accomplished by converting the interim change in the National Consumer Price Index (CPI) into a multiplier ratio through the following formula:

$$\frac{X}{CPI} = Y$$

Where: X = CPI in any given future year
CPI = National CPI in 1991 (1983 = 1.00)
Y = Change ratio

Multiplying the change ratio (Y) times any 1992 based cost or income figure presented in this study will yield the adjusted dollar amounts appropriate in any future year re-

evaluation. This procedure should be used in the last section, **Continuous Planning Process.** However, only *National* CPI data should be used, as local or regional measures may vary. This information is available from the economic research departments of most banks.

An airport development schedule takes into consideration not only the demand for facilities but also the financial capability of the airport proprietor. After reviewing prevailing unit and construction costs, financing options, the plans of existing tenant developer/operators, and the priorities indicated by the forecast demand timetable, development stage costs have been determined, and are summarized in **Table 7A.**

Scheduling has been divided into three major stages, covering the entire planning period. The first stage of five fiscal years (FY) includes these items of critical importance to the overall safe operation of the airport and its benefit to the community as a whole. The second five-year stage includes those items necessary for maintenance or improvement of the capacity of the facility.

TABLE 7A
Summary of Total Costs
Mesa-Falcon Field Airport
(1992 Dollars)

Stage I (FY 1993-1998)	$11,206,800
Stage II (FY 1998-2002)	$8,480,200
Stage III (FY 2003-2015)	$5,930,100
TOTAL DEVELOPMENT COST	**$25,617,100**

The third long-term phase covering the remaining ten years should include those items necessary to improve efficiency and the overall operational effectiveness of the system of facilities on the airport. Of course, each phase should include basic maintenance and revenue-generating components. As shown above, the total cost for the planned development of Mesa-Falcon Field Airport will be approximately $25.6 million through the year 2015.

A listing under each stage of the development program is outlined in the **Table** that follows each Stage and represents the culmination of comparative analysis of basic budget factors, need or demand, and priority assignments. The table's figures include local costs for the construction of conventional . T-hangars because they are expected to be built by the City of Mesa. However, this construction cost can be shifted to private developers if the City no longer desires to purchase T-Hangar units. The construction of conventional hangars and T-hangars is not eligible for federal/state funding because they are revenue producing.

Stage I has been subdivided into single year phases for FY 1993 through FY 1997. The major projects in the initial years of this stage are focused on the acquisition of land for approach protection and a Part 150 Noise Compatibility Study for the airport. The airport is surrounded on three sides by agricultural and residential land uses. Therefore, property available for airport expansion and or protection is rapidly diminishing.

Although noise problems have not been a significant problem at the airport, the most opportune time to perform a Part 150 Noise Study is before a significant problem develops. Airport management has assigned the Noise Compatibility Study a high priority in the airport's development program.

Another significant project element in this stage of development is construction of the initial runway extension, a two-step process that will be completed in Stage II. Construction of the initial runway extension (Runway 4R) will provide the airport with a significant increase in the capacity to hangar general aviation aircraft as well as provide a safer environment for aircraft operating at the airport during the hot weather months.

This Stage also includes the design and construction of an underpass on Falcon Drive. The underpass is considered an important project designed to increase the safety of operations on the airport, reduce motor vehicle airfield incursions and retain accessibility to aircraft, hangars and aviation businesses from Falcon Drive.

Airport security will also be enhanced with the construction of a significant potion of the airport's fencing plan for the airport. Also included among the activities in this stage are pavement preservation projects to ensure the longevity of the airfield surfaces. Nearly 80 T-Hangar units are planned for construction during this stage. Total cost of this phase is estimated to be $11.2 million. Table 7B lists the projects assigned to this stage of the airport's development program.

TABLE 7B
Capital Improvement Program
Mesa-Falcon Field

Stage I (FY1993-FY1997)	Total Cost
Stage I (FY1993-FY1994)	
1. Acquire land for approach protection, Rwy 4R, 34.36 acres[1]	1,818,300
2. Conduct Falcon Drive Underpass design study	62,500
3. Install On-airport Nondirectional Radiobeacon	F&E
4. Expand utilities (water/electric), 3,600 lf	47,300
5. Construct B-9 Taxiway, 21,300 SY	319,500
6. Install MITL, Taxilane B-9, 1,800 LF	67,500
7. Conduct Part 150 Noise Study Analysis	$187,500
7A. Conduct an EA for Runway 4R-22L extension/instrument approach	93,800
Total Stage I (FY1993-FY1994)	**$2,596,400**
Stage I (FY1994-FY1995)	
8. Install/Replace airport security fencing, 4,875 LF	243,800
9. Construct 2-10 unit T-Hangars	375,000
10. Construct Falcon Drive Underpass	1,875,000
11. Acquire land for approach protection, 37.06 acres[1]	3,229,400
12. Install taxiway signage (26)	109,100
13. Install vehicle warning signs, Taxiway B-6, 7	1,300
Total Stage I (FY1994-FY1995)	$5,833,600

TABLE 7B (Continued)
Capital Improvement Program
Mesa-Falcon Field

Stage I (FY1995-FY1996)	
14. Construct 4-10 unit T-Hangars	$750,000
15. Study Nonprecision approach to Runway 4R-22L	12,500
16. Pavement Preservation	200,000
17. Install/Replace airport security fencing, 1,750 LF	87,500
18. Install ASOS	F & E
Total Stage I (FY1995-FY1996)	**$1,050,000**
Stage I (FY1996-FY1997)	
19. Install/Replace airport security fencing, 1,710 LF	64,100
20. Construct 2-10 unit T-Hangars	375,000
21. Pavement preservation	187,500
23. Relocate/widen Taxiway A-5, 3,400 SY	76,500
24. Install MITL, Taxiway A-5, 1,200 LF	45,000
25. Widen Taxilane B-10, restripe, 4,200 SY	101,300
Total Stage I (FY1996-FY1997)	**$849,400**
Stage I (FY1997-FY1998)	
26. Install/Replace airport security fencing, 2,050 LF	20,500
27. Construct 2-10 unit T-Hangars	375,000
28. Construct Runway 4R 350 foot extension, 4,000 SY	180,000
29. Construct parallel Taxiway D1 extension and holding apron, 4,500 SY	202,500
30. Remove and replace four (4) underground fuel storage tanks	50,000[2]
31. Acquire nonprecision instrument approach procedure	12,500
32. Install MIRL, Runway 4R, 700 LF	30,600
33. Relocate PAPI, Runway 4R	6,300
Total Stage I (FY1997-FY1998)	**$877,400**
TOTAL STAGE I (FY1993-FY1998)	**$11,206,800**

Stage II development includes the five year period from FY 1998 through 2002. The major focus of this stage in the development program is to improve the efficiency of airport operations and reduce takeoff and landing delays. All traffic patterns are to the north at this airport in order to reduce overflight of residential areas to the east of the airport. Airspace management is limited by these procedures and airfield improvements that can reduce the time aircraft occupy the runway reduce the impact of only one traffic pattern orientation.

Several taxiway improvements are scheduled as well as apron/taxiway holding areas. Two hi-speed exit taxiways are planned for Runway 4L-22R in order to increase the frequency of use and reduce the spacing between landing traffic. As operational activity increases, the importance of these improvements should not be underestimated.

The major development items in this period are the extension of Runway 22L and the addition of apron in the Terminal area for larger general aviation aircraft. The Runway 22L extension would complete the project begun in Stage I, to increase the capability of the airport to accommodate aircraft during the hot weather as well as improve operational efficiency at the airport.

The extension of Taxiway A-5 will allow the development of corporate lease areas south of the park. The expansion of the Terminal will meet the needs of the airport throughout this period. The removal of underground storage tanks, begun in Stage I, will continue during this phase of development as well. The total cost of the projects illustrated in Table 7C for Stage II are estimated at $8.5 million.

TABLE 7C
Capital Improvement Program
Mesa-Falcon Field

Stage II (FY1998-FY2002)	Total Cost
1. Extend Runway 22L, 550 feet, 6,100 SY	266,900
2. Install MIRL, Runway 22L, 1,100 LF	48,100
3. Construct Taxiway A-5 extension, apron, 8,100 SY	182,300
4. Construct four 10-unit T-Hangars	750,000
5. Pavement Preservation, 400,000 SY	375,000
6. Crack seal, slurry seal, 100,000 SY	125,000
7. Construct Taxiway B-9 extension and taxilanes, 11,200 SY	168,000
8. Install MITL, Taxilane B-9, 500 LF	18,800
9. Install/replace airport security fence, 6,550 LF	327,500
10. Acquire property for general aviation expansion, 33 acres	3,229,400
11. Construct access road in new property, 4,000 LF	175,000
12. Construct parallel Taxiway D-3 extension and holding apron, 5,300 SY	231,900
13. Construct Taxiway A-2 extension and holding apron, 4,600 SY	103,500
14. Construct parallel Taxiway C-6 and holding apron, 7,100 SY	159,800
15. Construct dual taxiway B-4 and B-5, 8,000 FY	350,000
16. Construct Hi-speed taxiway exits, Runway 4L-22R, 3,500 SY	78,800
17. Widen terminal apron, 2,000 SY	87,500

TABLE 7C (Continued)
Capital Improvement Program
Mesa-Falcon Field

Stage II (FY1998-FY2002)	Total Cost
18. Grade perimeter road, 27,700 SY	415,500
19. Install utilities, T-Hangar area, 2,800 LF	133,000
20. Remove five underground fuel storage tanks	62,500
21. Construct and mark/stripe large aircraft apron, 24,500 SY	551,300
22. Expand Terminal Building, 400 SF	50,000
23. Displace thresholds and lights, Runway 4R-22L	37,500
24. Install REIL's, Runway 4L-22R	25,000
25. Install MITL, Taxiway A-5, 3,200 LF	120,000
26. Install Taxiway signage, 30	247,500
27. Relocate PAPI, Runway 22L	6,300
28. Install Blast Fence, FAA parking lot	18,800
29. Install MITL, dual taxilanes, B-3 to B-6, 3,450 LF	129,400
TOTAL STAGE II	$8,480,200

Stage III construction (2003-2015) will ultimately produce an airport capable of accommodating all of the aviation activity anticipated during the planning period. The projects will include a second expansion of the Terminal Building, the relocation of T-hangars, taxilane construction in support of additional T-Hangars and the installation of taxiway lighting (MITL) on the taxilanes in the T-hangar area. The removal of all underground fuel storage tanks will also be completed during this period. Pavement preservation projects, part of the airport long range pavement maintenance plan, will continue during Stage III. Table 7D lists the projects assigned to Stage III with an estimated total cost of $5.9 million.

TABLE 7D
Capital Improvement Program
Mesa-Falcon Field

Stage III (FY2003-FY2015)	Total Cost
1. Construct, mark and stripe large aircraft apron, 24,500 SY	$551,300
2. Relocate 17 T-Hangars (Units O and C)	212,500
3. Construct FBO Hangar, 10,000 SF	937,500[2]
4. Construct Auto Parking areas, 12,700 SY	254,000
5. Pavement preservation, 400,000 SY	375,000
6. Crack seal, slurry seal, 200,000 SY	250,000
7. Extend Taxilane B-9 and construct taxilanes, 27,600 SY	414,000
8. Install MITL, B-9 taxilane, 300 LF	11,300
9. Install MITL, B-7 taxilane, 4,300 LF	161,300

TABLE 7D (Continued)
Capital Improvement Program
Mesa-Falcon Field

Stage III (FY2003-FY2015)	Total Cost
10. Install MITL, B-8 taxilane, 2,400 LF	90,000
11. Restripe B-8 taxilane, 1,200 LF	7,500
12. Install MITL, B-10 taxilane, 2,800 LF	105,000
13. Install MITL, West Taxiway, 2,200 LF	82,500
14. Install two limited access gates	20,000
15. Install/replace airport security fencing, 4,775 LF	238,800
16. Remove two underground fuel storage tanks (private)	25,000[2]
17. Remove three underground fuel storage tanks	37,500
18. Construct holding aprons, Taxiways A-2 and C-2, 1,700 SY	38,300
19. Construct access taxiway from apron to Runway 22L, 2,000 SY	45,000
20. Construct six 10-unit T-Hangars	1,125,000
21. Construct Helicopter takeoff and landing area, 1,100 SY	6,300
22. Install Taxiway signage, 40	167,900
23. Strengthen Taxilanes B-7 through B-10, 30,000 Lbs SW, 34,400 SY	774,400
TOTAL STAGE III (FY2003-FY2015)	$5,930,100
TOTAL DEVELOPMENT PROGRAM	$25,617,100

NOTE: F & E = Facilities and Equipment Program - FAA
[1] Costs represent estimates by the City of Mesa.
[2] This project will be privately funded.

AIRPORT FUNDING AND REVENUE SOURCES

As previously mentioned, financing the development and operation of an airport does not come completely from one source. Such is the case with Mesa-Falcon Field Airport where both federal and local sources for funding will be utilized during the planning period. In each case, the primary contributor to development and operation will be the aviation community. The following sections discuss these funding sources and how they can contribute to the successful implementation of this Master Plan.

FEDERAL AND STATE AID TO AIRPORTS

The United States Congress has long recognized the need to develop and maintain a system of aviation facilities across the nation for the purpose of national defense and promotion of interstate commerce. Various grants-in-aid programs to public airports have been established over the years for this purpose.

The source for federal Airport Improvement Program (AIP) funds is the **Aviation Trust Fund**. The Trust Fund is the depository for

all federal aviation taxes such as those on airline tickets, aviation fuel, lubricants, tires and tubes, aircraft registrations, and other aviation-related fees. The funds are distributed under appropriations set by Congress to all airports in the United States which have certified eligibility. Congress has appropriated $1.9 billion for FY 92[1]. The distribution of grants is administered by the Federal Aviation Administration.

Other FAA funds will come through the Facilities and Equipment (F&E) section of the FAA. When activity levels warrant, the airport will be considered by F&E for various navigational aids. The Nondirectional Radiobeacon planned for the airport would be funded and maintained totally by the FAA.

The State of Arizona also participates in the development of general aviation airports through the Arizona Department of Transportation - (ADOT), Aeronautics Division. Presently the state may grant up to 50 percent of the local share of FAA eligible projects and 90 percent on some projects not eligible for federal funding. Currently the state has set a maximum grant amount of $500,000 to any eligible airport in fiscal year 1992-93.[2]

The **Continuous Planning Program** at the end of this chapter depicts the item-by-item breakdown of federal/state and local funding for the development of the proposed Master Plan. A summary of the development program costs are depicted in **Table 7E**.

TABLE 7E
Summary of Development Costs
Mesa-Falcon Field

	Local	State	Federal	Private	Total
Stage I (FY 1993-1997)	$2,569,500	$734,200	$7,853,100	$50,000	$11,206,800
Stage II (FY 1998-2002)	1,449,650	757,950	6,272,600	0	8,480,200
Stage III (FY 2003-2015)	1,743,900	904,900	2,318,800	962,500	5,930,100
Total	**$5,763,050**	**$2,397,050**	**$16,444,500**	**$1,012,500**	**$25,617,100**

LOCAL FUNDING SOURCES

The capability of local sources to provide the local matching share on improvement projects weighs heavily in the priority of AIP funding. In essence, the local share acts as a measure of the City's sense of value for the airport. The following sections examine the potential sources for local funding beginning with an examination of the airports cash flow.

Projected Airport Operating Expenses

Airport expenses are divided into two major categories by the City: Operating and Non-operating expenses. Operating and non-operating expenses for Mesa-Falcon Field Airport were projected after reviewing previous expense records of the airport. A review and analysis of the City's financial

records on the airport during the past five years is illustrated in **Table 7E.**

The expenses were compared to similar airports and related to the expected growth and development of the airport throughout the master plan. The airport's expenses include labor costs, utilities, administrative costs, supplies and maintenance.

The City's financial management system is extremely complicated, especially in the accounting of airport expenses. In the City's financial accounting system, airport expenses are categorized by functional area rather than the more common Personnel, Administrative, Maintenance, Supplies, Equipment, Utilities and Miscellaneous categories. All of these categories are included within the functional area (Maintenance: Apron, Terminal, Hangars, Runways and Taxiways, and Other). Each Maintenance expense category actually contains object codes for accounts that belong under personnel, administrative, maintenance, etc. Under such a system, airport management must perform a great deal of complicated analysis to determine where expense problems may be developing.

The Departmental Administrative and General expense category contains the administrative, supply and miscellaneous cost categories associated with the administration of the airport.

In an attempt to make the airport's historical expenses more meaningful, they were separated into more traditional accounts such as Personnel, Administration, Utilities, Supply, Vehicles and Miscellaneous. A historical summary of operating expenses for fiscal years 1987 through 1992 are included in **Table 7F.**

TABLE 7F
Historical Revenue and Expenses

	FY1987-1988	FY1988-1989	FY1989-1990	FY1990-1991	FY1991-1992
Revenues					
Fuel Sales	$67,831	$55,445	$64,360	$68,756	$75,088
Air Museum	15,288	19,076	20,419	18,080	27,762
Hangar Rents	393,420	432,550	524,349	526,082	540,451
Land Leases	373,214	361,651	377,814	388,726	397,098
Storage Rents	11,427	11,506	13,797	14,487	15,346
Tiedown Fees & Rents	127,068	115,119	91,776	90,659	104,153
Terminal Leases	12,517	6,065	13,193	14,000	34,500
Miscellaneous	3,861	6,104	2,314	16,128	1,382
TOTAL REVENUE	**$1,004,626**	**$1,007,516**	**$1,108,022**	**$1,136,918**	**$1,195,780**
Expenses					
Operating[1]					
Personnel	$423,163	$374,558	$317,846	$348,578	$364,830
Administration	38,689	22,413	18,197	36,170	46,064
Utilities	77,378	55,493	66,321	68,453	92,129
Equipment	7,254	4,998	6,523	6,523	8,637
Supplies	6,045	6,835	4,536	3,958	7,198
Maintenance	19,949	27,188	8,630	13,919	23,752
Vehicles	22,972	23,278	16,185	18,423	27,351
Capital Outlay	9,068	0	35,000	0	10,796
Total Operating[2]	**$604,518**	**$618,324**	**$486,187**	**$539,818**	**$580,757**
Non-Operating Departmental	$106,522	$95,730	$90,570	$87,254	$289,183
TOTAL EXPENSES	**$711,040**	**$714,054**	**$576,757**	**$627,072**	**$869,940**

NOTES: (1) Operating expenses were placed into account categories based upon an evaluation of the following City of Mesa financial documents: Source and Usage of Funds (#GL-500-01, page 20); Statement of Income (#GL-580-01, page 20); Budget Review Worksheets (#GL-410-01, pages 551-555, 01-02-92, GL-590-01, pages 10-20).

(2) Depreciation is not included as an expense item.

Details concerning the expense categories are discussed below and expense projections are shown in Table 7G. Some categories have been combined or consolidated in order to simplify the projections. Depreciation is not included in the expense projections. Inflation will affect future operating expenses but in order to maintain consistency with the remainder of the analysis, these factors are not included in these estimates. The projected operating expenses are shown in 1992 dollars to discount the unpredictability of inflation.

- PERSONNEL COSTS

Personnel costs include the labor costs of airport management personnel. These costs are distributed throughout the Maintenance functional areas and it is difficult to determine the actual percentage this category represents of total airport expense.

Personnel costs are projected to increase at two stages of the development program (Stage II and Stage III) due to planned increases in personnel. These additional costs are reflected in Table 7G.

- ADMINISTRATION

Administrative costs include the costs of telephone, postage, travel expenses, subscriptions, memberships and other miscellaneous administrative costs. Administrative costs have averaged approximately 5 percent of total airport operating expense. Administrative costs are anticipated to rise at a modest rate during the planning period, however, these costs will remain approximately five percent of the total operating expense.

- EQUIPMENT

Equipment expenses include the costs of equipment rental for reproduction and other administrative uses. Costs in this category have averaged approximately one percent of total operating expenses. It is anticipated that equipment expense will continue to be one percent of total operating expenses throughout the planning period.

- UTILITIES

Utilities included power, and water charges paid by the airport. This includes the utilities used by occupants of the terminal building and hangars as well as lighting of the parking lot, security, and airfield. Tenants leasing areas on the airport are responsible for their own utilities. Utility costs have averaged approximately 13 percent of total airport operating expense. Utility costs will increase with the additional airfield lighting programmed during the planning period.

- SUPPLIES

The supply expense, which includes both maintenance and administration supply costs, has averaged approximately three percent of total airport operating expense. Supply expense is projected to remain at approximately this same level throughout the planning period.

- VEHICLES

The cost of maintaining the airport's vehicles has averaged approximately four percent of total operating costs. The projection is that the vehicle expense will remain at approximately four percent of total airport expense throughout the planning period.

- MAINTENANCE

Maintenance expenses include the expenses of maintaining city owned/leased buildings and T-hangars on the airport as well as the supplies and parts necessary for repair/replacement incidental to the maintenance category. Maintenance costs have averaged approximately three percent of total operating expenses in the past and this percentage is expected to remain at approximately this level throughout the planning period.

- CAPITAL OUTLAY

This expense category includes costs of power equipment, office furniture and miscellaneous equipment that is not included in any other expense category. Capital equipment costs were negligible in two of the past five years and have averaged less than two percent of total airport expense during the historical period.

Capital costs have been projected to remain at less than two percent of total airport expense throughout the planning period.

- DEPARTMENT OVERHEAD

Department Overhead are the costs of supporting the airport by the various City departments, such as the City Manager, Engineering, etc. Some direct expenses of airport operations are also included in this category. Department Overhead has averaged approximately 31 percent of total airport expense. Projections throughout the planning period anticipate that this City levied expense will remain essentially unchanged as a percentage of total airport expense.

Airport Operating Revenues

Airport revenues are derived from fees and lease agreements with users of the airport or the airport property. Several methods are available for an airport to generate income from its use. Mesa-Falcon Field Airport presently uses fuel flowage fees, land and building leases, tiedown and hangar fees.

The ideal and ultimate goal of any airport should be the capability of supporting its own operation and development through airport user fees. Mesa-Falcon Field has successfully accomplished this goal and has established a reasonable fee schedule to accomplish this.

Analyses made earlier in the Master Plan indicated that Mesa-Falcon Field Airport will continue to be attractive to potential users. While the goal of the airport should be towards total self-sufficiency, it must be remembered that capital improvements normally increase operating expenses and make it difficult to match with revenues which tend to increase at a more normal inflationary rate. While much of the operating costs can be paid for over time by adjusting airport user fees, the fees must still remain reasonable so as not to significantly discourage airport use. Airport operating revenues have grown from 57 to 62 percent of the airport budget during the past five years, an average of one percent per year in growth.

The following discussion breaks down the areas of revenue potential for Mesa-Falcon Field Airport and makes realistic projections based on the assumption that the airport development program will be completed as scheduled. It is anticipated that the evaluation of rates and fees takes place on an annual basis and that all lease agreements contain the ability to adjust rates and fees periodically. **Table 7G** outlines future revenue projections. All revenue rates are based upon 1992 dollars.

- FUEL FLOWAGE FEES

Fuel flowage fees are one of the most common revenue sources for public airports. The fee is usually established on a per gallon basis and is collected from the fuel concessionaires on the airport. Care must be taken in establishing a reasonable fee that will not discourage airport operators from refueling at the airport. The City currently charges $.08 per gallon of fuel upon delivery to the airport. A $.05 to $.12 per gallon charge is the typical range of fuel flowage fees at airports similar in size to Mesa-Falcon Field Airport.

Utilizing the forecast of probable fuel sales at the airport during the planning period (**Exhibit 7A**), the fuel flowage fee revenue was predicted for the airport and illustrated in **Table 7G**.

- AIR MUSEUM

The airport receives revenue from the Air Museum located on the airport based on the number of visitors to the museum. This revenue, which provides approximately two percent of total airport department revenue, had been growing at an average rate of 20 percent per year until the recession in 1991. It is anticipated that this revenue source will exhibit a growth rate of approximately 5 percent annually throughout the planning period.

- HANGAR RENTS

Over 40 percent of the airport's total revenue is derived from the rental of T-hangars and conventional hangars at the airport. T-Hangar monthly rents vary from $134 to $225 depending on the T-Hangar size, while the larger conventional hangar rents are either $350 or $675 per month.

Projected revenue from this category is anticipated to increase based upon the number of hangars that are to be constructed during the planning period. Utilizing an average annual income per hangar and a conservative estimate of the number of hangars to be constructed and rented during the planning period, a projection of hangar rental income was produced and is depicted in **Table 7G.**

- LAND LEASES

The second largest contributor to airport revenue is the lease of land and/or buildings at the airport. This revenue category produced approximately 35 percent of the total airport revenue received during the past five years.

This revenue category had been growing on an average of approximately two percent annually before the 1990-91 recession. It is anticipated that this revenue category will continue to grow at approximately the same rate as there is a substantial amount of property on the airport available for lease.

- STORAGE RENTS

The income from Storage Rents is derived from the storage areas located on the ends of the nested T-Hangars. This income, which represents approximately one percent of total airport revenue, is projected to increase during the planning period based on the number of T-Hangars constructed. Revenue from this source is illustrated on **Exhibit 7F.**

- TIEDOWN FEES AND RENTS

This revenue category has been declining as a percentage of airport total revenue from 13 to 9 percent during the past five years. The monthly tiedown rent is currently $34 for single engine aircraft, $39 for twin engine aircraft and $67 for a covered tiedown.

The loss in income has been offset by a nearly proportionate rise in the income from T-Hangars as aircraft owners moved from open tiedowns or shade hangars to T-Hangars.

Tiedown Fees and Rents are expected to begin to stabilize at the current level because the airport does not have any vacant T-Hangars available until some are constructed. This will have the effect of slowing the movement to T-Hangars until T-Hangar space becomes available. However, it is anticipated that this income source will begin to decline during Stage II when T-Hangar construction is expected to meet the anticipated demand.

- TERMINAL LEASES

The airport department leases terminal space and facilities to Falcon Fuels which is included as income under this category. Income from this source is based on lease of the building, fuel farm and fuel island. This income source is expected to remain essentially unchanged except for inflation throughout the planning period, as illustrated in **Table 7G.**

- MISCELLANEOUS

This income source, which includes miscellaneous revenue from ancillary operations of the airport such as reproduction costs, facsimile machine use, labels, etc, and represents less than one percent of total airport revenue. Income from this revenue source is expected to remain unchanged throughout the planning period.

Other miscellaneous income sources that the airport might consider are gate access fees and automobile parking fees. Automobile parking is a viable revenue source for many commercial service airports around the country. However, most general aviation airports generally do not collect parking fees because of the costs involved in collecting them and the impact such fees could have on airport use. Automobile parking fees would offer little substantial return at Mesa-Falcon Field Airport and are not recommended for the planning period.

Gate Access fees are certainly appropriate, if only to cover the cost of preparing the cards used to access secure areas of the airport. When the fencing and gate access plans are complete, the airport should consider implementation of a fee to recover the costs of the additional security at the airport.

Projected revenues are presented in Table 7G for each year through 2015. Future fees should be increased as operating costs increase, and care should be taken before entering into leases that do not account for inflation. In order to maintain consistency with other analyses in this study, inflation factors have not been considered in the revenue projections.

CASH FLOW ANALYSIS

The projected revenues and expenses from airport operations throughout the planning period are illustrated in Table 7G. The difference between operating revenues and operating expenses produces the operating income (loss) for the airport. Over the last five years, operating revenues have exceeded operating expenses by an average $324,000 annually. From this income the airport meets the matching share requirements for federal and state grants as well as financing T-Hangar construction.

The forecast operating revenues will increase more rapidly than the projected operating expenses and will continue airport financial self-sufficiency. Based on anticipated fuel sales, potential increases in income sources on the airport, and stabilizing expenses, operating revenues will continue to match or exceed operating expenses. Although operating revenues are expected to cover operating expenses, the income from airport operations may not be sufficient to finance the local share of capital improvements. Depreciation, an expense item that is not reflected in the Cash Flow analysis (Table 7G), may substantially reduce the airport's income. It is expected that the City will need to fund capital improvements through other sources of funds.

FINANCING THE LOCAL SHARE OF AIRPORT CAPITAL IMPROVEMENTS

In addition to the revenues derived from airport operations, the City of Mesa has several methods available for financing the local share of airport development costs. The most common method involves debt financing which amortizes the debt over the useful life of the project (or a specified period). Methods of debt financing commonly available to a municipality are discussed below.

General Obligation Bonds

General Obligation (G.O.) Bonds are a common form of municipal bonds whose payment is secured by the full faith and credit of the City. G.O. Bonds are instruments of credit and, because of community guarantee, reduce the available debt level of the sponsoring community. This type of bond uses tax revenues to retire debt and the key element becomes the approval of the electorate to a tax levy to support airport development. If approved, G.O. Bonds are typically issued at a lower interest rate than other types of bonds.

TABLE 7G
Cash Flow Analysis
Mesa-Falcon Field

	Stage I				
	FY1993-1994	FY1994-1995	FY1995-1996	FY1996-1997	FY1997-1998
Revenues					
Fuel Sales	$92,300	$98,600	$104,800	$105,600	$106,400
Air Museum	25,000	25,600	26,200	26,900	27,600
Hangar Rents	702,000	704,700	706,500	709,200	712,800
Land Leases	525,000	535,500	546,200	551,700	557,200
Storage Rents	20,000	20,600	21,000	21,600	22,000
Tiedown Fees & Rents	122,000	122,000	122,000	122,000	122,000
Terminal Leases	24,000	24,000	24,000	24,000	24,000
Miscellaneous	4,500	4,600	4,700	4,700	4,700
TOTAL REVENUE	**$1,514,800**	**$1,535,600**	**$1,555,400**	**$1,565,700**	**$1,576,700**
Expenses					
Operating					
Personnel	$370,000	$384,800	$400,200	$416,200	$432,800
Administration	48,000	49,900	51,900	54,000	56,200
Utilities	96,000	99,800	103,800	108,000	112,300
Equipment	9,000	9,400	9,700	10,100	10,500
Supplies	7,500	7,800	8,100	8,400	8,800
Maintenance	24,700	25,700	26,800	27,800	29,000
Vehicles	28,500	29,600	30,800	32,100	33,300
Capital Outlay	11,300	11,800	12,200	12,700	13,200
Total Operating Expenses	**595,000**	**618,800**	**643,600**	**669,300**	**696,100**
Non-Operating Expenses	267,500	278,200	289,300	300,800	312,800
TOTAL EXPENSES	**$862,500**	**$897,000**	**$932,900**	**$970,100**	**$1,008,900**
Net Income (Loss)[1]	**652,300**	**638,600**	**622,500**	**595,600**	**567,800**
DEVELOPMENT PROGRAM COST	**$81,750**	**$782,000**	**$832,950**	**$443,300**	**$395,200**

NOTE: [1] Total expenses do not account for Depreciation which would substantially reduce these figures.

TABLE 7G (Continued)
Cash Flow Analysis
Mesa-Falcon Field

	Stage II				
	FY1998-1999	FY1999-2000	FY2000-2001	FY2001-2002	FY2002-2003
Revenues					
Fuel Sales	$107,200	$108,000	$108,800	$109,700	$110,700
Air Museum	28,300	29,000	29,700	30,400	31,200
Hangar Rents	715,500	717,700	719,500	720,900	722,200
Land Leases	562,800	568,400	574,100	579,800	585,600
Storage Rents	22,600	23,000	23,400	23,600	24,000
Tiedown Fees & Rents	122,000	122,000	122,000	120,500	119,000
Terminal Leases	24,000	24,000	24,000	26,000	26,500
Miscellaneous	4,700	4,800	4,800	4,800	4,900
TOTAL REVENUE	**$1,587,100**	**$1,596,900**	**$1,606,300**	**$1,615,700**	**$1,624,100**
Expenses					
Operating					
Personnel	$450,000	$468,200	$486,900	$488,000	$488,000
Administration	58,400	60,700	63,200	65,700	68,300
Utilities	116,800	121,500	126,300	131,400	136,600
Equipment	10,900	11,400	11,800	12,300	12,800
Supplies	9,100	9,500	9,900	10,300	10,700
Maintenance	30,100	31,300	32,600	33,900	35,200
Vehicles	34,700	36,100	37,500	39,000	40,600
Capital Outlay	13,700	14,300	14,900	15,500	16,100
Total Operating Expenses	**735,900**	**752,900**	**783,000**	**796,100**	**808,300**
Non-Operating Expenses	325,400	338,300	351,900	384,300	407,500
TOTAL EXPENSES	**$1,049,300**	**$1,091,200**	**$1,134,900**	**$1,180,400**	**$1,215,800**
Net Income (Loss)[1]	**537,800**	**505,700**	**471,400**	**435,300**	**408,300**
DEVELOPMENT PROGRAM COST	**$286,000**	**$286,000**	**$286,000**	**$286,000**	**$286,000**

NOTE:[1] Total expenses do not account for Depreciation which would substantially reduce these figures.

TABLE 7G (Continued)
Cash Flow Analysis
Mesa-Falcon Field

	Stage III				
	FY2003-2004	FY2004-2005	FY2005-2006	FY2006-2007	FY2007-2008
Revenues					
Fuel Sales	$111,700	$112,700	$113,700	$116,100	$117,300
Air Museum	32,000	32,800	33,600	34,900	36,300
Hangar Rents	723,500	724,800	726,100	750,000	751,300
Land Leases	591,500	597,400	603,400	615,500	627,800
Storage Rents	24,200	24,600	24,800	25,200	25,400
Tiedown Fees & Rents	117,500	116,000	114,500	113,000	111,500
Terminal Leases	27,000	27,500	28,000	30,000	32,000
Miscellaneous	4,900	4,900	4,900	5,100	5,100
TOTAL REVENUE	**$1,632,300**	**$1,640,700**	**$1,649,000**	**$1,689,800**	**$1,706,700**
Expenses					
Operating					
Personnel	$488,000	$488,000	$508,000	$508,000	$508,000
Administration	71,100	73,900	76,800	79,900	83,100
Utilities	142,100	147,800	153,700	153,700	166,200
Equipment	13,300	13,900	14,400	14,400	15,600
Supplies	11,100	11,500	12,000	12,500	13,000
Vehicles	36,600	38,100	39,600	41,200	42,900
Maintenance	42,200	43,900	45,600	47,400	49,300
Capital Outlay	16,700	17,400	18,100	18,800	19,600
Total Operating Expenses	**821,100**	**834,500**	**868,200**	**882,600**	**897,700**
Non-Operating Expenses	431,100	455,300	460,300	485,800	511,300
TOTAL EXPENSES	**$1,252,200**	**$1,289,800**	**$1,328,500**	**$1,368,400**	**$1,409,000**
Net Income (Loss)[1]	**380,100**	**350,900**	**320,500**	**321,400**	**297,300**
DEVELOPMENT PROGRAM COST	**$134,140**	**$134,140**	**$134,140**	**$134,140**	**$134,140**

NOTE:[1] Total expenses do not account for Depreciation which would substantially reduce these figures.

TABLE 7G (Continued)
Cash Flow Analysis
Mesa-Falcon Field

	Stage III (continued)				
	FY2008-2009	FY2009-2010	FY2010-2011	FY2011-2012	FY2012-2013
Revenues					
Fuel Sales	$118,600	$119,800	$121,000	$122,200	$123,400
Air Museum	37,800	39,300	40,900	42,500	44,200
Hangar Rents	752,600	753,700	754,800	755,900	757,000
Land Leases	640,400	653,200	666,300	679,600	693,200
Storage Rents	25,800	25,800	26,200	26,200	26,600
Tiedown Fees & Rents	110,000	108,500	107,000	105,500	104,000
Terminal Leases	33,000	34,000	35,000	36,000	37,000
Miscellaneous	5,200	5,200	5,300	5,300	5,400
TOTAL REVENUE	**$1,723,400**	**$1,739,500**	**$1,756,500**	**$1,773,200**	**$1,790,800**
Expenses					
Operating					
Personnel	$508,000	$508,000	$508,000	$508,000	$508,000
Administration	86,400	89,900	93,500	97,200	101,100
Utilities	172,900	179,800	187,000	187,000	202,200
Equipment	16,200	16,700	17,500	18,200	19,000
Supplies	13,500	14,000	14,600	15,200	15,800
Vehicles	44,600	46,400	48,200	50,100	52,100
Maintenance	51,300	53,400	55,500	57,700	60,000
Capital Outlay	20,300	21,200	22,000	22,900	23,800
Total Operating Expenses	**913,200**	**929,600**	**946,300**	**963,800**	**982,000**
Non-Operating Expenses	531,400	551,100	571,500	582,804	581,963
TOTAL EXPENSES	**$1,444,600**	**$1,480,700**	**$1,517,800**	**$1,546,604**	**$1,563,963**
Net Income (Loss)[1]	**278,800**	**258,800**	**238,700**	**226,596**	**226,837**
DEVELOPMENT PROGRAM COST	**$134,140**	**$134,140**	**$134,140**	**$134,140**	**$134,140**

NOTE:[1] Total expenses do not account for Depreciation which would substantially reduce these figures.

TABLE 7G (Continued)
Cash Flow Analysis
Mesa-Falcon Field

	Stage III (continued)		
	FY2013-2014	FY2014-2015	FY2015-2016
Revenues			
Fuel Sales	$124,600	$125,900	$127,100
Air Museum	46,000	47,800	49,700
Hangar Rents	758,100	759,200	760,100
Land Leases	707,100	721,200	735,600
Storage Rents	26,600	27,000	27,400
Tiedown Fees & Rents	102,500	101,000	99,500
Terminal Leases	38,000	39,000	40,000
Miscellaneous	5,400	5,500	5,500
TOTAL REVENUE	**$1,808,300**	**$1,826,600**	**$1,844,900**
Expenses			
Operating			
Personnel	$528,000	$528,000	$528,000
Administration	105,200	109,400	113,700
Utilities	210,300	218,700	227,500
Equipment	19,700	20,500	21,300
Supplies	16,400	17,100	17,800
Vehicles	54,200	56,400	58,600
Maintenance	62,400	64,900	67,500
Capital Outlay	24,800	25,700	26,800
Total Operating Expenses	**1,021,000**	**1,040,700**	**1,061,200**
Non-Operating Expenses	561,872	560,224	557,926
TOTAL EXPENSES	**$1,582,872**	**$1,600,924**	**$1,619,126**
Net Income (Loss)[1]	225,428	225,676	225,774
DEVELOPMENT PROGRAM COST	**$134,140**	**$134,140**	**$133,920**

NOTE:[1] Total expenses do not account for Depreciation which would substantially reduce these figures.

Self-Liquidating General Obligation Bonds

As with all G.O. Bonds, Self-Liquidating Bonds are secured by the issuing governmental agency. They are retired by the adequate cash flow from operation of the facility for which the bonds were issued. However, the state court system must determine that the project is self-sustaining and the debt may legally be excluded from the debt limits of the community.

Since the credit of the local government bears the risk of default, the bond issue is considered as part of the City's debt limit. Therefore, this method of financing may mean a higher rate of interest on all bonds sold by the community. The amount of increase depends on the inherent risk. Exposure risk occurs when there is insufficient net operating income to service the debt.

Revenue Bonds

Revenue Bonds are another method of bonding available to the City and are payable solely from the revenue of a particular project or from operating income of the Airport. Generally, they fall outside of constitutional and statutory limitations and, in many cases, do not require electorate approval. Because of the limitations on other public bonds, airport sponsors are increasingly turning to revenue bonds whenever possible.

However, Revenue Bonds normally carry higher rate of interest because they lack the guarantees of General Obligation Bonds. It should also be noted that the general public would usually be aware of the risk involved with a revenue bond issue for a general aviation airport. Therefore, the sale of such bonds could be more difficult than others.

Bank Financing

Some airport sponsors have used bank financing as a means of providing airport development capital. Generally, two conditions are required; the airport must demonstrate the ability to repay the loan plus interest, and the capital improvement must be less than the value of the present facility. These are standard conditions which are applied to almost all bank loan transactions. This method of financing could be particularly useful for smaller development items that will produce revenues and a positive cash flow.

Third-Party Support

Several types of funding fall into this category. For example, individuals or interested organizations may contribute portions of the required development funds. Although not a common means of airport financing, the role of private financial contributions not only increases the financial support of the project, but also stimulates moral support to airport development.

Another method of third-party support involves permitting the fixed base operator (FBO) to construct his own hangar and maintenance facilities on property leased from the airport. The advantage to this arrangement is that it lowers the local share of development costs, a large portion of which is building construction. However, the disadvantage is that the airport sponsor will receive a smaller percentage of the revenue generated at the airport. For this reason, it is important to consider all eventualities before entering into a specific lease agreement.

Community Support

While it is certainly advantageous for an airport to support itself, the indirect and tangible benefits of the airport to the economy of the region and its growth must also be considered. Two sectors of the economy, Construction and Transportation directly benefit the City and County. Over 500 people are employed at the airport in

either aviation related activities or private enterprize. As airport activity increases, it is likely employment opportunity on the airport will also expand throughout the planning period.

The local construction industry will benefit directly from the implementation of the development program. The cost of the Master Plan improvements coming from fund sources outside the community will total approximately $18.8 million. In addition to the above Master Plan improvement costs, buildings developed by private investors in new airport lease areas could total another $1.0 million in new construction.

Other community benefits involve business growth and development that is enhanced by the availability of an airport. While it cannot be determined if an industry has or has not located in the Mesa area because of the airport, the fact remains that the major employers in the community benefit extensively from the presence of Mesa-Falcon Field Airport. Some of these same firms own and operate aircraft that use the airport. Clients and suppliers of businesses in the Mesa area will also benefit by the future facilities.

The Airport Director will need to keep fully abreast of all the potential funding sources and research each source on a continuing basis. The final portions of this chapter deal with this through a process called *Continuous Planning*. By closely monitoring the aviation activity and availability of funds with the worksheets provided on the following pages, airport management will be able to carry out its function of implementing the master plan.

CONTINUOUS PLANNING

Out of necessity, funding for the development of Mesa-Falcon Field Airport over the next twenty years will need to be obtained from several sources. Federal and state aid will be a primary source and will be instrumental in the development of the program. Airport revenue will be another source for financing the plan. However, with these funding sources, the airport has the potential to become fully self-sufficient in the long term.

Experience has indicated that major problems have materialized from the standard format of past planning documents. These problems center around the plan's inflexibility and inherent inability to deal with new issues that develop from unforeseen changes that may occur after it is completed. The format used in the development of this master plan has attempted to deal with this issue. First, to emphasize that planning is a **continuous process** that does not end with the completion of a major project. Second, to try to recognize this without invalidating the overall Master Plan. The primary issues upon which this Master Plan is based will remain valid for several years. In fact, they are likely to remain valid into the next century. The primary goal is for the airport to evolve into a self-supporting position without sacrificing service and accommodations.

The following schedules are designed to aid airport management in the continuous evaluation of airport activity growth in order to program an appropriate rate for airport development. This should not be misconceived as a commitment by the City of Mesa, private investors, or the FAA to the development shown. Rather, it is hoped that the inclusion of these annual discussions will help decision makers recognize the continuous planning needs of the community and allow the master plan to become a valuable tool in this process. The real value of a **usable master plan** is that it keeps the issues and objectives in the mind of the user. Consequently, the user is better able to recognize change and its effect. In addition, it can make the decision to undertake this Master Plan much more effective by extending the period that this Master Plan remains valid and eliminating the need for costly updates. Updating can be done by the

user and if the user's experience with this plan has been good, he or she will improve the plan's effectiveness.

Guidelines and worksheets are included in the following section for the initial Stage I development (FY 1993-1998). Summary work-sheets are also included for Stage II (FY 1998-2002) and Stage III (FY 2003-2015). All estimated development costs are based on 1992 dollars. Therefore, costs must be adjusted by the appropriate inflation rate factor in effect at the particular time of development.

The continuing planning process requires the City of Mesa to consistently monitor the progress of the airport in terms of growth in fuel sales, based aircraft, and annual operations because this growth is critical to the exact timing and need for new airport facilities. The information obtained from this monitoring process will provide the data necessary to determine if the development schedule should be accelerated, decelerated, or maintained as scheduled.

On an annual basis, airport management should compile this information and determine the actual number of based aircraft, total annual aircraft operations, and gallons of fuel sold.

This continuous planning process data will be extremely important during the first five-year development program. The data obtained should be reported on the space provided on the yearly airport development schedule. With this information, adjustments in the development schedule can be made to effectively deal with variations in forecast or any unanticipated demand that may arise. By closely monitoring the activity and availability of funds with the worksheets provided on the following pages, management will be able to carry out its function of implementing the master plan.

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81MP04-7A-5/8/92

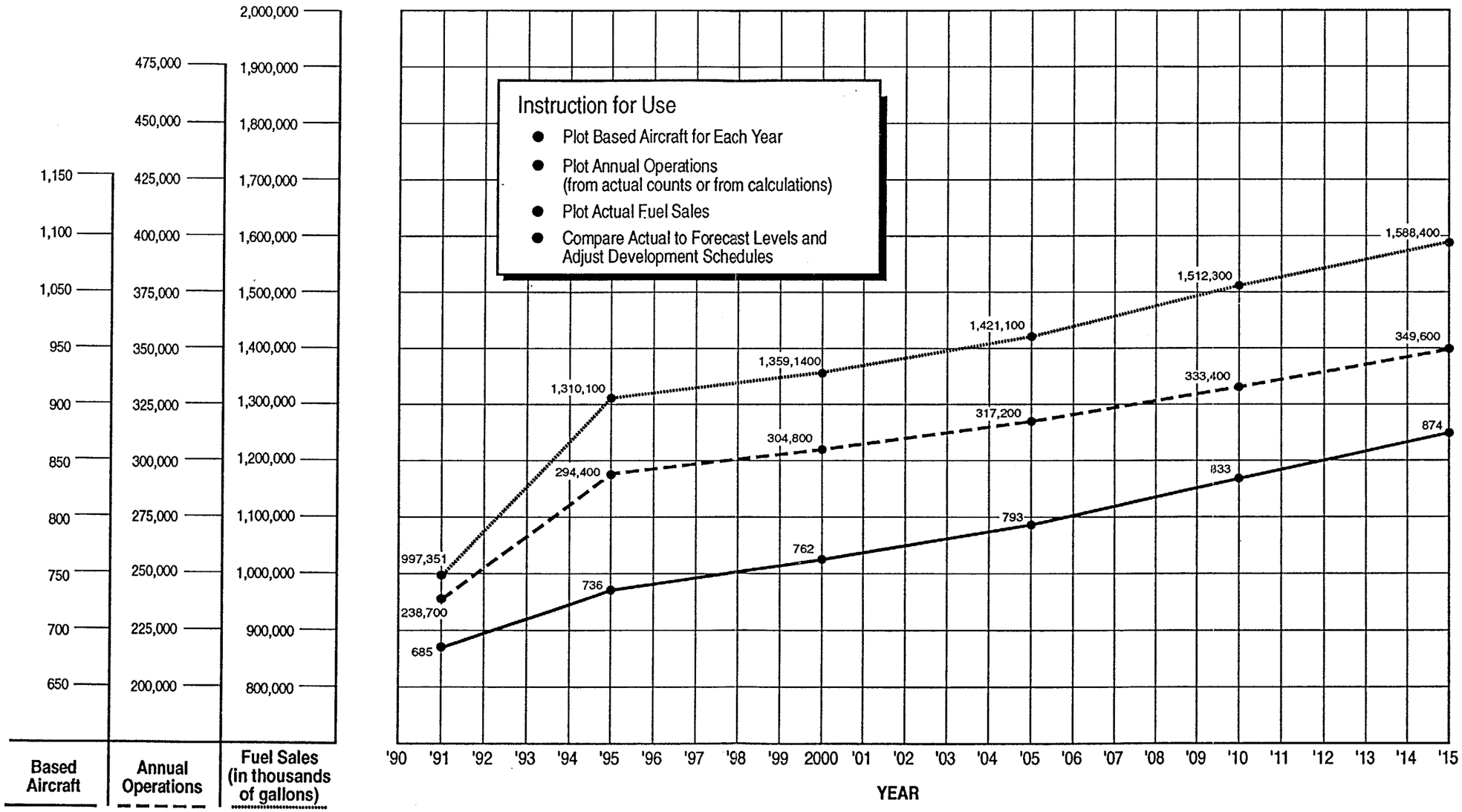
MESA - FALCON FIELD AIRPORT

	Annual Operations		Based Aircraft		Annual Fuel Sales	
Year	Forecast	Actual	Forecast	Actual	Forecast	Actual
1991		238,700		685		997,351
1992	252,600		698		1,075,500	
1993	266,600		710		1,153,700	
1994	280,500		723		1,231,900	
1995	294,400		736		1,310,100	
1996	296,500		741		1,319,900	
1997	298,600		746		1,329,800	
1998	300,600		751		1,339,700	
1999	302,700		757		1,349,500	
2000	304,800		762		1,359,400	
2001	307,300		768		1,371,700	
2002	309,800		774		1,384,100	
2003	312,200		781		1,396,400	
2004	314,700		787		1,408,700	
2005	317,200		793		1,421,100	
2006	320,400		801		1,451,500	
2007	323,700		809		1,466,700	
2008	326,900		817		1,481,900	
2009	330,200		825		1,497,100	
2010	333,400		833		1,512,300	
2011	336,600		842		1,527,600	
2012	339,900		850		1,542,800	
2013	343,100		858		1,558,000	
2014	346,400		866		1,573,200	
2015	349,600		874		1,588,400	

MESA-FALCON FIELD

Exhibit 7A
CONTINUOUS PLANNING CHART

91MP04-7B-5/8/92



MESA-FALCON FIELD

Exhibit 7B
CONTINUOUS PLANNING GRAPH

STAGE I FY 1993-94
Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period on the next page. The table also provides a reminder of other potential sources that might be used in critical situations.

Airport Funds Balance	$ _____
Grants	$ _____
Contributions/Other	$ _____
TOTAL	$ _____

As a reminder, airport development should be keyed to demand (**actual** activity) rather than to a specific time frame (**forecast** activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the first step in the process of initiating the recommended development program for this period. Significant differences between forecast and actual activity may warrant acceleration or deceleration of the airport development schedule.

Activity	1993 Forecasts	1993 Levels	Difference
Operations	266,600	_____	_____
Based Aircraft	710	_____	_____
Fuel Sales (gallons)	1,153,700	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred which may impact the development program? What adjustments in the development schedule are required to effectively deal with these factors.

_____

_____

_____

STAGE I FY 1993-94
Airport Development Program (Continued)

Development Item	Local	State	Federal	Total
1. Acquire land, 34.36 acres	$81,250	$81,250	$1,655,800	$1,818,300
2. Conduct Falcon Drive Underpass design study	2,800	2,800	56,900	62,500
3. Install On-airport Nondirectional Radiobeacon	0	0	0	0
4. Expand utilities (water/electric), 3,600 LF	2,100	2,100	43,100	47,300
5. Construct B9 Taxiway, 21,300 SY	14,300	14,300	290,900	319,500
6. Install MITL, Taxilane B9, 1,800 LF	3,000	3,000	61,500	67,500
7. Conduct Part 150 Noise Study Analysis	8,400	8,400	170,700	187,500
7A. Conduct EA for Runway 4R-22L, extensions	4,200	4,200	85,400	93,800
Total Stage I (FY1993-94)	**$116,050**	**$116,050**	**$2,364,300**	**$2,596,400**

Inflation Adjustment: _____ % x $2,596,400

NOTE: Project #3 is financed under FAA's Facilities and Engineering Program.

Plus or Minus Other Proposed Development:

1. _____	$ _____	$ _____	$ _____	$ _____
2. _____	$ _____	$ _____	$ _____	$ _____
3. _____	$ _____	$ _____	$ _____	$ _____
4. _____	$ _____	$ _____	$ _____	$ _____
Total	$ _____	$ _____	$ _____	$ _____

Since the FAA Fiscal year is from October through September, efforts should begin immediately to identify the development that will be eligible for federal or other funding during this period. Applications for federal funds should be submitted early for the maximum funding possible, in case additional funds become available.

STAGE I FY 1994-95
Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period on the next page. The table also provides a reminder of other potential sources that might be used in critical situations.

Airport Funds Balance	$ _____
Grants	$ _____
Contributions/Other	$ _____
TOTAL	$ _____

As a reminder, airport development should be keyed to demand (**actual** activity) rather than to a specific time frame (**forecast** activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the first step in the process of initiating the recommended development program for this period. Significant differences between forecast and actual activity may warrant acceleration or deceleration of the airport development schedule.

Activity	1994 Forecasts	1994 Levels	Difference
Operations	280,500	_____	_____
Based Aircraft	723	_____	_____
Fuel Sales (gallons)	1,231,900	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred which may impact the development program? What adjustments in the development schedule are required to effectively deal with these factors.

_____

_____

_____

STAGE I FY 1994-95
Airport Development Program (Continued)

Development Item	Local	State	Federal	Total
8. Install/Replace airport security fencing, 4,875 LF	$173,900	$3,300	$66,600	$243,800
9. Construct 2-10 unit T-Hangars	375,000	0	0	375,000
10. Construct Falcon Drive Underpass	83,800	83,800	1,707,400	1,875,000
11. Acquire land for approach protection, 37.06 acres	144,350	144,350	2,940,700	3,229,400
12. Install taxiway signage, 26	4,900	4,900	49,300	109,100
13. Install vehicle warning signs, Taxiway B-1	50	50	1,200	1,300
Total Stage I (FY1994-95)	**$782,000**	**$236,400**	**$4,815,200**	**$5,833,600**

Inflation Adjustment: _____ % x $5,833,600

Plus or Minus Other Proposed Development:

1. _____	$ _____	$ _____	$ _____	$ _____
2. _____	$ _____	$ _____	$ _____	$ _____
3. _____	$ _____	$ _____	$ _____	$ _____
4. _____	$ _____	$ _____	$ _____	$ _____
Total	$ _____	$ _____	$ _____	$ _____

Since the FAA Fiscal year is from October through September, efforts should begin immediately to identify the development that will be eligible for federal or other funding during this period. Applications for federal funds should be submitted early for the maximum funding possible, in case additional funds become available.

STAGE I FY 1995-96
Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period on the next page. The table also provides a reminder of other potential sources that might be used in critical situations.

Airport Funds Balance	$ _____
Grants	$ _____
Contributions/Other	$ _____
TOTAL	$ _____

As a reminder, airport development should be keyed to demand (actual activity) rather than to a specific time frame (forecast activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the first step in the process of initiating the recommended development program for this period. Significant differences between forecast and actual activity may warrant acceleration or deceleration of the airport development schedule.

Activity	1995 Forecasts	1995 Levels	Difference
Operations	294,400	_____	_____
Based Aircraft	736	_____	_____
Fuel Sales (gallons)	1,310,000	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred which may impact the development program? What adjustments in the development schedule are required to effectively deal with these factors.

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STAGE I FY 1995-96
Airport Development Program (Continued)

Development Item	Local	State	Federal	Total
14. Construct 4-10 unit T-Hangars	$750,000	$0	$0	$750,000
15. Study Nonprecision approach to Runway 4R-22L	550	550	11,400	12,500
16. Pavement Preservation	20,000	180,000	0	200,000
17. Install/Replace airport security fencing 1,750 LF	62,400	1,200	23,900	87,500
18. Install ASOS	-	-	-	F&E
Total Stage I (FY1995-96)	**$832,950**	**$181,750**	**$35,300**	**$1,050,000**

Inflation Adjustment: _____ % x $1,050,000 =

Plus or Minus Other Proposed Development:

1. _____	$ _____	$ _____	$ _____	$ _____
2. _____	$ _____	$ _____	$ _____	$ _____
3. _____	$ _____	$ _____	$ _____	$ _____
4. _____	$ _____	$ _____	$ _____	$ _____
Total	$ _____	$ _____	$ _____	$ _____

Since the FAA Fiscal year is from October through September, efforts should begin immediately to identify the development that will be eligible for federal or other funding during this period. Applications for federal funds should be submitted early for the maximum funding possible, in case additional funds become available.

STAGE I FY 1996-97
Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period on the next page. The table also provides a reminder of other potential sources that might be used in critical situations.

Airport Funds Balance	$ _____
Grants	$ _____
Contributions/Other	$ _____
TOTAL	$ _____

As a reminder, airport development should be keyed to demand (**actual** activity) rather than to a specific time frame (**forecast** activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the first step in the process of initiating the recommended development program for this period. Significant differences between forecast and actual activity may warrant acceleration or deceleration of the airport development schedule.

Activity	1996 Forecasts	1996 Levels	Difference
Operations	296,500	_____	_____
Based Aircraft	741	_____	_____
Fuel Sales (gallons)	1,319,900	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred which may impact the development program? What adjustments in the development schedule are required to effectively deal with these factors.

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STAGE I FY 1996-97
Airport Development Program (Continued)

Development Item	Local	State	Federal	Total
19. Install/Replace airport security fencing 1,710 LF	$39,600	$1,100	$23,400	$64,100
20. Construct 1-10 unit T-Hangar	375,000	0	0	375,000
21. Pavement Preservation	18,750	168,750	0	187,500
23. Relocate/widen Taxiway A5, 3,400 SY	3,400	3,400	69,700	76,500
24. Install MITL, Taxiway A5, 1,200 LF	2,000	2,000	41,000	45,000
25. Widen Taxilane B-10 and restripe, 4,200 SY	4,550	4,550	92,200	101,300
Total Stage I (FY1996-97)	**$443,300**	**$179,800**	**$226,300**	**$849,400**

Inflation Adjustment: _____ % x $849,400

Plus or Minus Other Proposed Development:

1. _____	$ _____	$ _____	$ _____	$ _____
2. _____	$ _____	$ _____	$ _____	$ _____
3. _____	$ _____	$ _____	$ _____	$ _____
4. _____	$ _____	$ _____	$ _____	$ _____
Total	$ _____	$ _____	$ _____	$ _____

Since the FAA Fiscal year is from October through September, efforts should begin immediately to identify the development that will be eligible for federal or other funding during this period. Applications for federal funds should be submitted early for the maximum funding possible, in case additional funds become available.

STAGE I FY 1997-1998
Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period on the next page. The table also provides a reminder of other potential sources that might be used in critical situations.

Airport Funds Balance	$ _____
Grants	$ _____
Contributions/Other	$ _____
TOTAL	$ _____

As a reminder, airport development should be keyed to demand (**actual** activity) rather than to a specific time frame (**forecast** activity) The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the first step in the process of initiating the recommended development program for this period. Significant differences between forecast and actual activity may warrant acceleration or deceleration of the airport development schedule.

Activity	1997 Forecasts	1997 Levels	Difference
Operations	298,600	_____	_____
Based Aircraft	746	_____	_____
Fuel Sales (gallons)	1,329,800	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred which may impact the development program? What adjustments in the development schedule are required to effectively deal with these factors.

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STAGE I FY 1997-1998
Airport Development Program (Continued)

Development Item	Local	State	Federal	Total
26. Install/Replace airport security fencing, 2,050 LF	$900	$900	18,700	$20,500
27. Construct 2-10 unit T-Hangars	375,000	0	0	375,000
28. Construct Rwy 4R 350 ft extension, 4,000 SY	8,050	8,050	163,900	180,000
29. Construct parallel Twy D-1 extension/apron 4,500 SY	9,050	9,050	184,400	202,500
30. Remove/replace four underground fuel storage tanks	0	0	0	50,000(1)
31. Acquire nonprecision instrument approach procedure	550	550	11,400	12,500
32. Install MIRL, Runway 4R, 700 LF	1,350	1,350	27,900	30,600
33. Relocate PAPI, Runway 4R	300	300	5,700	6,300
Total Stage I (FY1997-98)	**$395,200**	**$20,200**	**$412,000**	**$877,400**
(1) Private Funding				
TOTAL STAGE I (FY1993-1998)	**$2,569,500**	**$734,200**	**$7,853,100**	**$11,206,800**

Inflation Adjustment: _____ % x $877,400

Plus or Minus Other Proposed Development:

1. _____	$ _____	$ _____	$ _____	$ _____
2. _____	$ _____	$ _____	$ _____	$ _____
3. _____	$ _____	$ _____	$ _____	$ _____
4. _____	$ _____	$ _____	$ _____	$ _____
Total	$ _____	$ _____	$ _____	$ _____

Since the FAA Fiscal year is from October through September, efforts should begin immediately to identify the development that will be eligible for federal or other funding during this period. Applications for federal funds should be submitted early for the maximum funding possible, in case additional funds become available.

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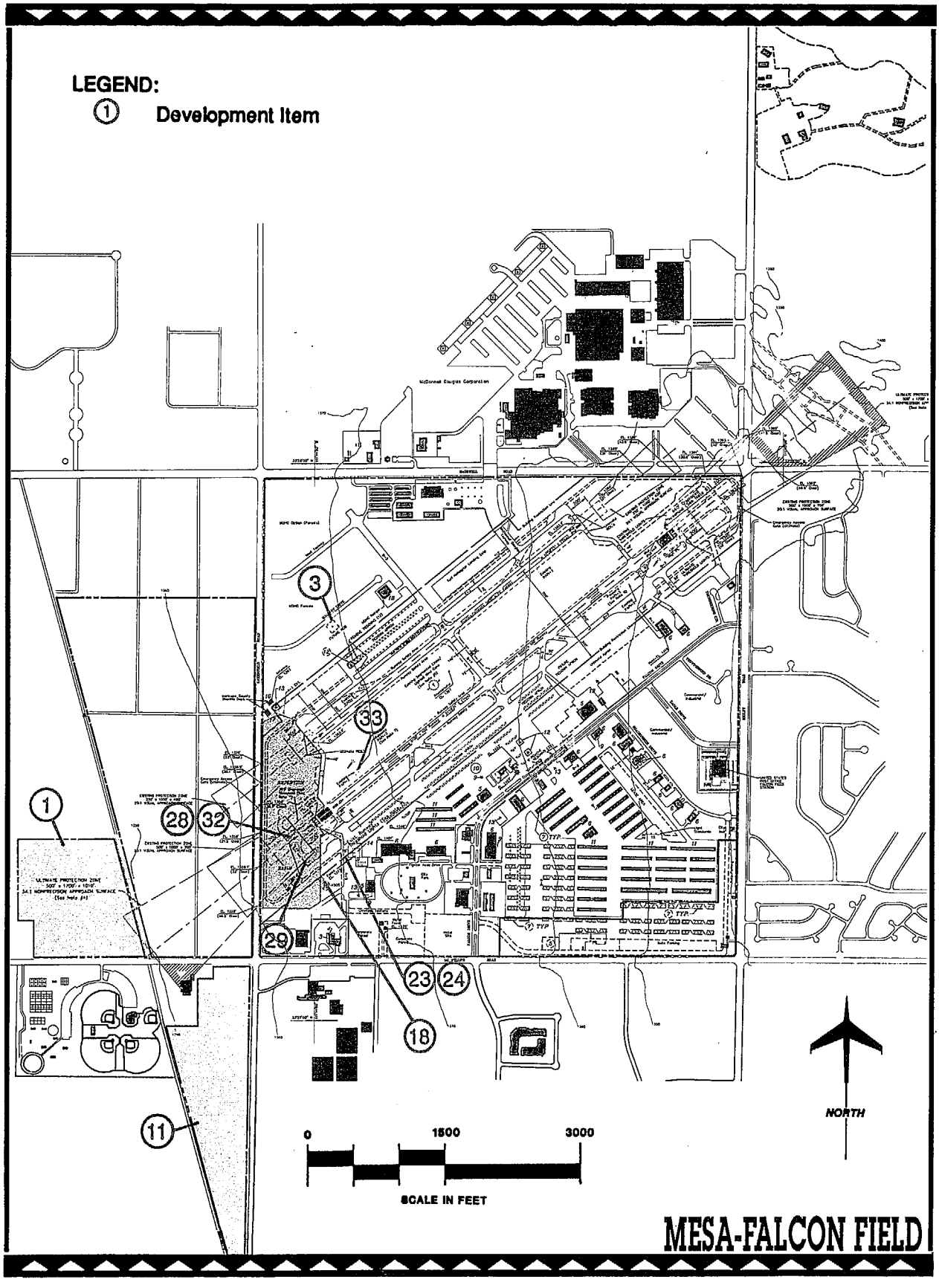

Exhibit 7C
STAGE I (FY 1993-1997)
AIRSIDE DEVELOPMENT PROGRAM

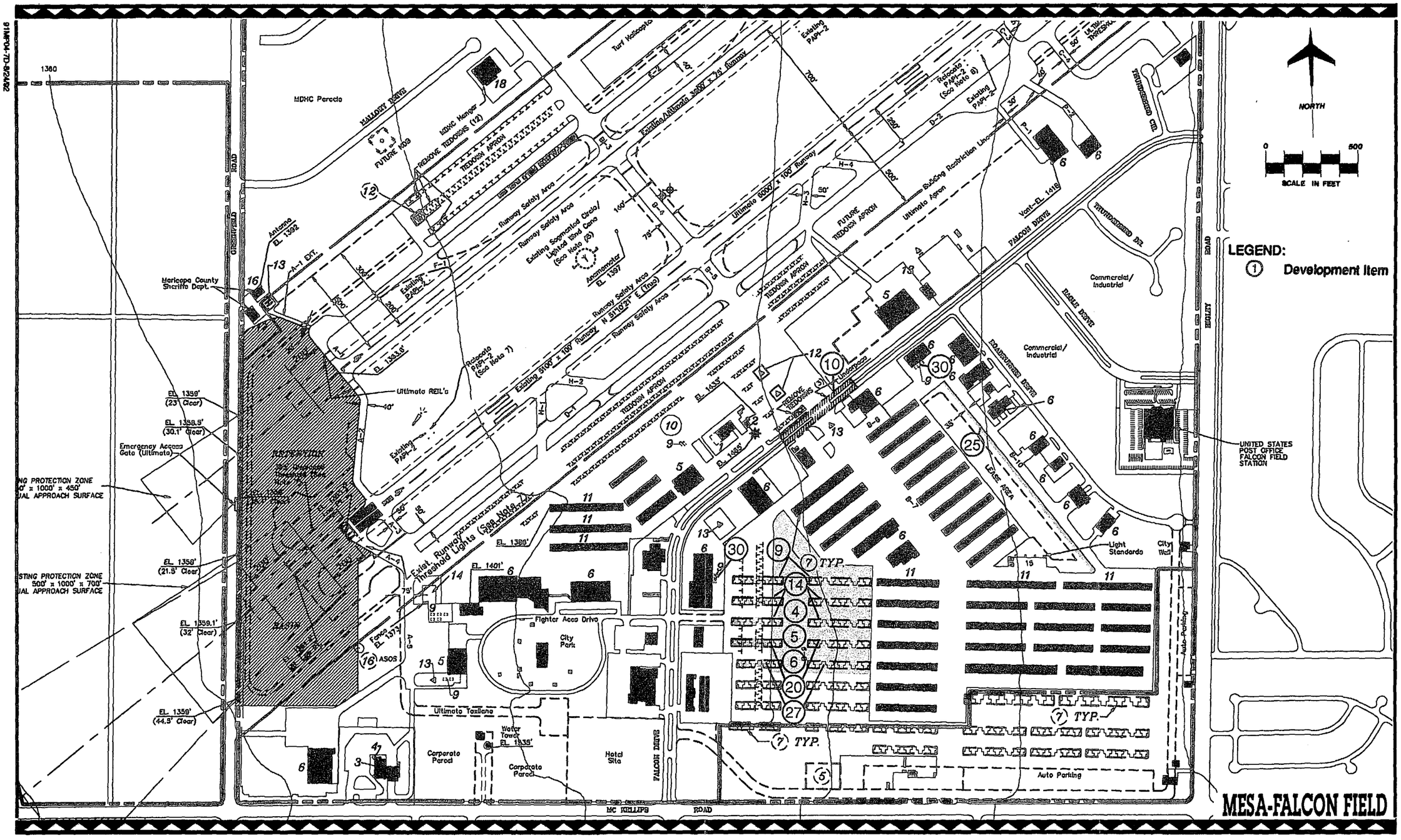

Exhibit 7D
STAGE I (FY 1993-1997)
LANDSIDE DEVELOPMENT PROGRAM

STAGE II FY 1998-2002
Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period on the next page. The table also provides a reminder of other potential sources that might be used in critical situations.

Airport Funds Balance	$ _____
Grants	$ _____
Contributions/Other	$ _____
TOTAL	$ _____

As a reminder, airport development should be keyed to demand (**actual** activity) rather than to a specific time frame (**forecast** activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the first step in the process of initiating the recommended development program for this period. Significant differences between forecast and actual activity may warrant acceleration or deceleration of the airport development schedule.

Activity	(Year) Forecasts	(Year) Levels	Difference
Operations	(See Exhibit 7B)	_____	_____
Based Aircraft	(See Exhibit 7B)	_____	_____
Fuel Sales (gallons)	(See Exhibit 7B)	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred which may impact the development program? What adjustments in the development schedule are required to effectively deal with these factors.

_____

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STAGE II FY 1998-2002
Airport Development Program (Continued)

Development Item	Local	State	Federal	Total
1. Extend Rwy 22L, 550 feet, 6,100 SY	$11,950	11,950	243,000	$266,900
2. Install MIRL, Rwy 22L, 1,100 LF	2,150	2,150	43,800	48,100
3. Construct Twy A-5 extension and apron 8,100 SY	8,150	8,150	166,000	182,300
4. Construct four 10-unit T-Hangars	750,000	0	0	750,000
5. Pavement preservation, 400,000 SY	37,500	337,500	0	375,000
6. Crack seal, slurry seal, 100,000 SY	12,500	112,500	0	125,000
7. Construct Twy B-9 and taxilanes, 11,200 SY	7,500	7,500	153,000	168,000
8. Install MITL, Taxilane B-9, 500 LF	850	850	17,100	18,800
9. Install/replace airport security fence, 6,500 LF	233,600	4,400	89,500	327,500
10. Acquire property for GA expansion, 33 acres	144,350	144,350	2,940,700	3,229,400
11. Construct access road to new property, 4,000 LF	7,800	7,800	159,400	175,000
12. Construct parallel Twy D-3 extension, 5,300 SY	10,350	10,350	211,200	231,900
13. Construct Twy A-2 extension, 4,600 SY	4,650	4,650	94,200	103,500
14. Construct parallel Twy C-6 and apron, 7,100 SY	7,150	7,150	145,500	159,800
15. Construct dual Twy B-4 and B-5, 8,000 SY	15,650	15,650	318,700	350,000
16. Construct Hi-speed Twy exits, Rwy 4L-22R, 3,500 SY	3,500	3,500	71,800	78,800
17. Widen terminal apron, 2,000 SY	3,900	3,900	79,700	87,500
18. Grade perimeter road, 27,700 SY	18,550	18,550	378,400	415,500
19. Install utilities, T-Hangar area, 2,800 LF	5,950	5,950	121,100	133,000
20. Remove five underground fuel storage tanks	62,500	0	0	62,500
21. Construct and mark large aircraft apron	24,650	24,650	502,000	551,300
22. Expand Terminal Building, 400 SF	50,000	0	0	50,000
23. Displace thresholds and lights, Runway 4R-22L	1,700	1,700	34,100	37,500
24. Install REIL's, Runway 4L-22R	1,100	1,100	22,800	25,000
25. Install MITL, Twy A-5, C-6, D-3, F-1 and F-2	11,050	11,050	225,400	247,500
26. Install Taxiway signage, 30	5,650	5,650	114,600	125,900
27. Relocate PAPI, Runway 22L	300	300	5,700	6,300
28. Install Blast fence, FAA parking lot	850	850	17,100	18,800
29. Install MITL, dual taxilanes, B-3 - B-6, 3,450 LF	5,800	5,800	117,800	129,400
TOTAL STAGE II (FY1998-2002)	$1,449,650	$757,950	$6,272,600	$8,480,200

Inflation Adjustment: _____ % x $8,480,200

STAGE II FY 1998-2002
Airport Development Program (Continued)

Plus or Minus Other Proposed Development:

1. _____	$ _____	$ _____	$ _____	$ _____
2. _____	$ _____	$ _____	$ _____	$ _____
3. _____	$ _____	$ _____	$ _____	$ _____
4. _____	$ _____	$ _____	$ _____	$ _____
Total	$ _____	$ _____	$ _____	$ _____

Since the FAA Fiscal year is from October through September, efforts should begin immediately to identify the development that will be eligible for federal or other funding during this period. Applications for federal funds should be submitted early for the maximum funding possible, in case additional funds become available.

STAGE III FY 2003-2015
Airport Development Program

The table provided below has been designed to note the funds available so that they can be kept in mind while analyzing the development factors outlined for this period on the next page. The table also provides a reminder of other potential sources that might be used in critical situations.

Airport Funds Balance	$ _____
Grants	$ _____
Contributions/Other	$ _____
TOTAL	$ _____

As a reminder, airport development should be keyed to demand (actual activity) rather than to a specific time frame (forecast activity). The spaces provided below allow actual activity data to be recorded for comparison with the forecast levels. This should be the first step in the process of initiating the recommended development program for this period. Significant differences between forecast and actual activity may warrant acceleration or deceleration of the airport development schedule.

Activity	(20xx) Forecasts	(20xx) Levels	Difference
Operations	(See Exhibit 7B)	_____	_____
Based Aircraft	(See Exhibit 7B)	_____	_____
Fuel Sales (gallons)	(See Exhibit 7B)	_____	_____

Based on the activity comparison above, should the recommended development schedule be maintained? Have new problems, needs, or development potentials occurred which may impact the development program? What adjustments in the development schedule are required to effectively deal with these factors.

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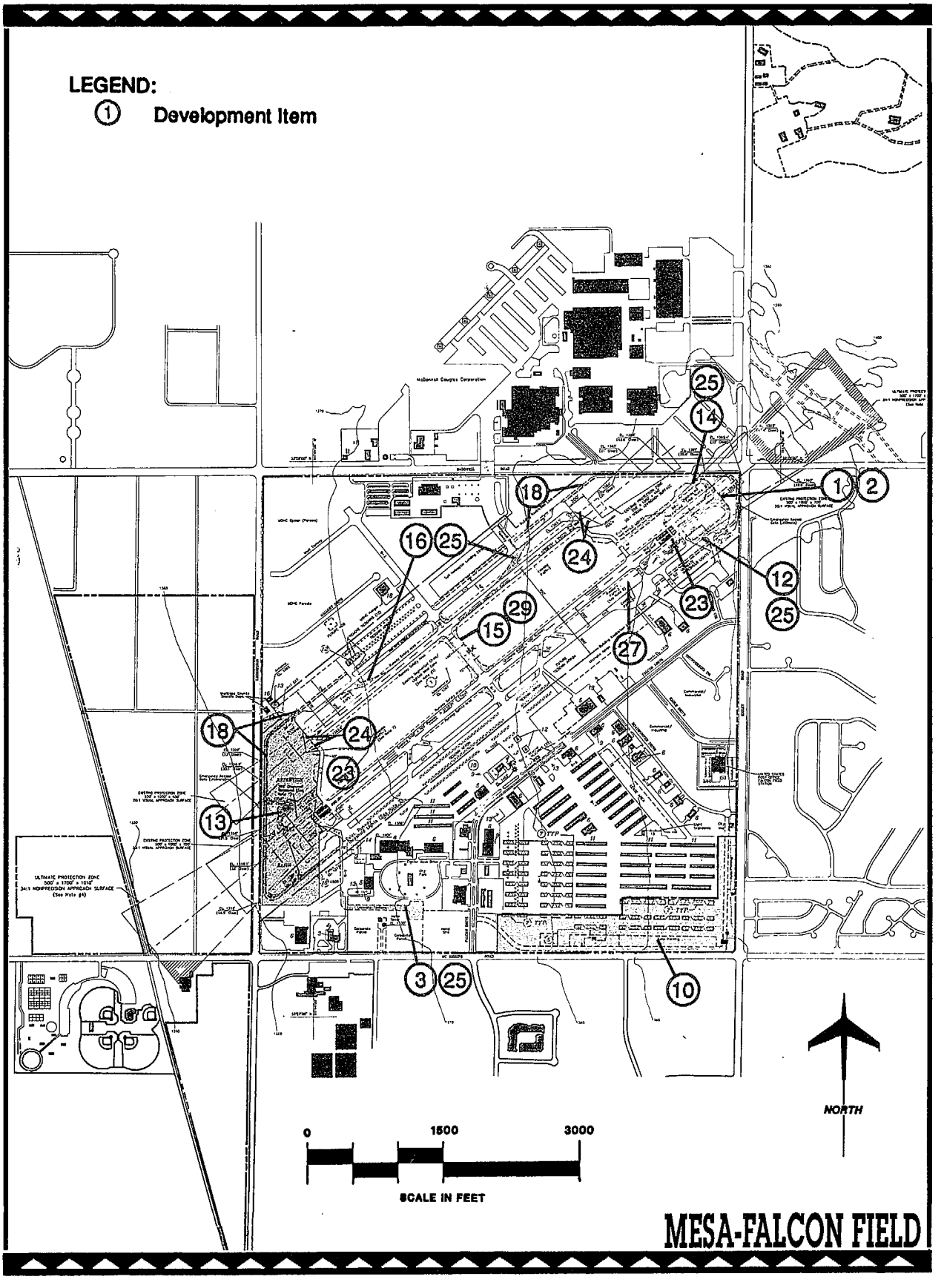

Exhibit 7E
STAGE II (FY 1998-2002)
AIRSIDE DEVELOPMENT PROGRAM

91MP04-7F-8/24/92

NORTH

0 500

SCALE IN FEET

LEGEND:

① **Development Item**

MESA-FALCON FIELD

Exhibit 7F
STAGE II (FY 1998-2002)
LANDSIDE DEVELOPMENT PROGRAM

STAGE III FY 2003-2015
Airport Development Program (Continued)

Development Item	Local	State	Federal	Total
1. Construct, mark and stripe large aircraft apron	$24,650	$24,650	$502,000	$551,300
2. Relocate 17 T-Hangars (Units O and C)	212,500	0	0	212,500
3. Construct FBO Hangar, 10,000 SF	0	0	0	937,500[1]
4. Construct Auto Parking areas, 12,700 SY	25,400	228,600	0	254,000
5. Pavement preservation, 400,000 SY	37,500	337,500	0	375,000
6. Crack seal, slurry seal, 200,000 SY	25,000	225,000	0	250,000
7. Extend Taxilane B-9 and construct taxilanes	18,500	18,500	377,000	414,000
8. Install MITL, B-9 taxilane, 300 LF	500	500	10,300	11,300
9. Install MITL, B-7 taxilane, 4,300 LF	7,200	7,200	146,900	161,300
10. Install MITL, B-8 taxilane, 2,400 LF	4,000	4,000	82,000	90,000
11. Restripe B-8 taxilane, 1,200 LF	350	350	6,800	7,500
12. Install MITL, B-10 taxilane, 2,800 LF	4,700	4,700	95,600	105,000
13. Install MITL, West Taxiway, 2,200 LF	3,700	3,700	75,100	82,500
14. Install two limited access gates	900	900	18,200	20,000
15. Install/replace airport security fencing, 4,775 LF	170,400	3,200	65,200	238,800
16. Remove two underground fuel storage tanks (private)	0	0	0	25,000[1]
17. Remove three underground fuel storage tanks	37,500	0	0	37,500
18. Construct holding aprons, Taxiways A-2 and C-3	1,700	1,700	34,900	38,300
19. Construct access taxiway from apron to Rwy 22L	2,000	2,000	41,000	45,000
20. Construct six 10-unit T-Hangars	1,125,000	0	0	1,125,000
21. Construct Helicopter takeoff and landing area, 1,100 SY	300	300	5,700	6,300
22. Install Taxiway signage, 40	7,500	7,500	152,900	167,900
23. Strengthen Taxilanes B-7 through B-10, 30,000 lbs SW	34,600	34,600	705,200	774,400
TOTAL STAGE III (FY2003-2015)	$1,743,900	$904,900	$2,318,800	$5,930,100
TOTAL DEVELOPMENT PROGRAM	$5,763,350	$2,397,050	$16,444,500	$25,617,100[2]

(1) Private Funding
(2) Includes $1,012,500 of private funding

Inflation Adjustment: _____ % x $5,930,100

Plus or Minus Other Proposed Development:

1. _____	$ _____	$ _____	$ _____	$ _____
2. _____	$ _____	$ _____	$ _____	$ _____
3. _____	$ _____	$ _____	$ _____	$ _____
4. _____	$ _____	$ _____	$ _____	$ _____
Total	$ _____	$ _____	$ _____	$ _____

Since the FAA Fiscal year is from October through September, efforts should begin immediately to identify the development that will be eligible for federal or other funding during this period. Applications for federal funds should be submitted early for the maximum funding possible, in case additional funds become available.

Bibliography

(1) Airports, July 1992, FY1992-93, Budget allocation, Airport Improvement Program.

(2) Arizona's Five Year Transportation Facilities Construction Program FY92-96

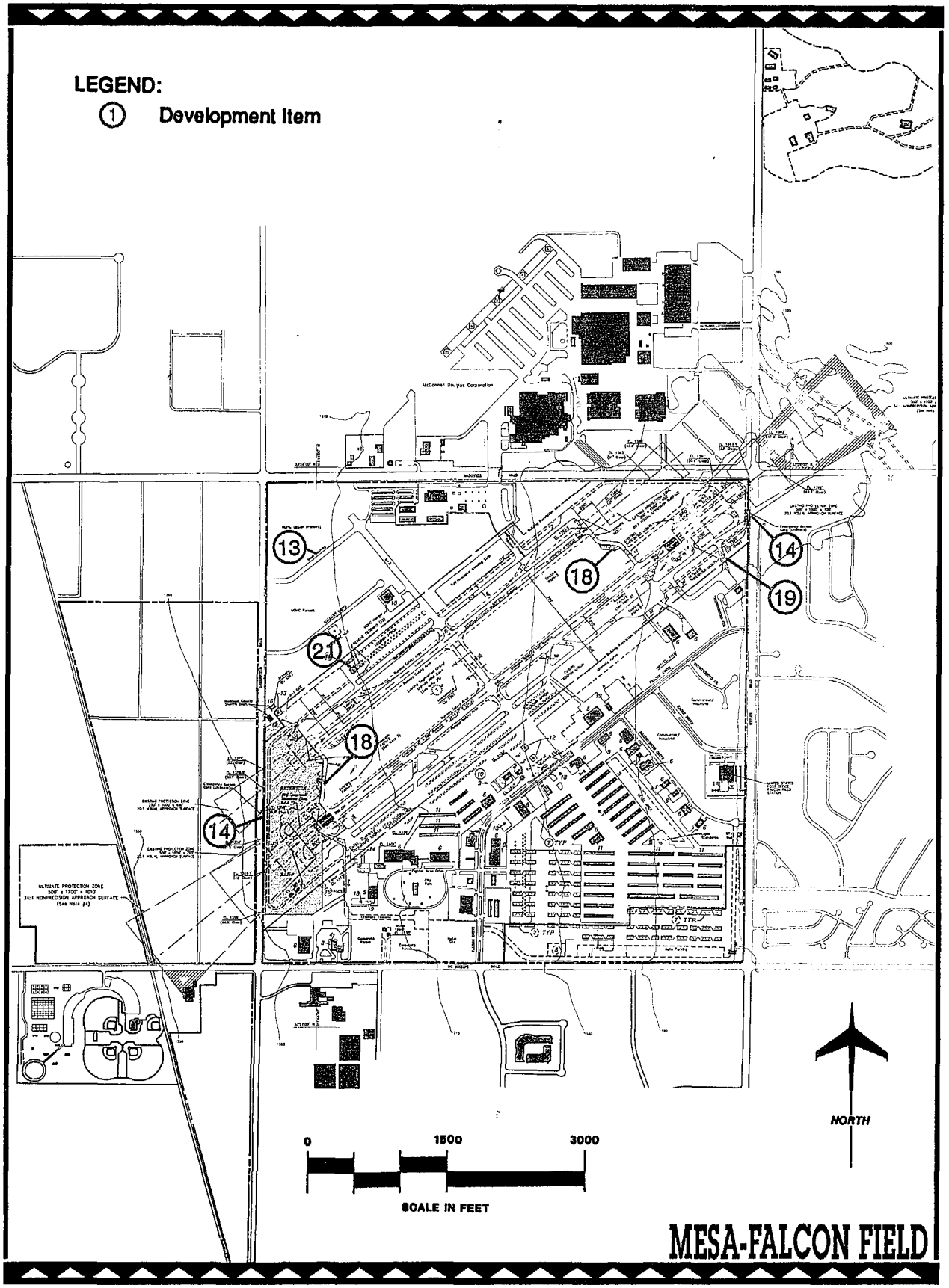

Exhibit 7G
STAGE III (FY 2003-2015)
AIRSIDE DEVELOPMENT PROGRAM

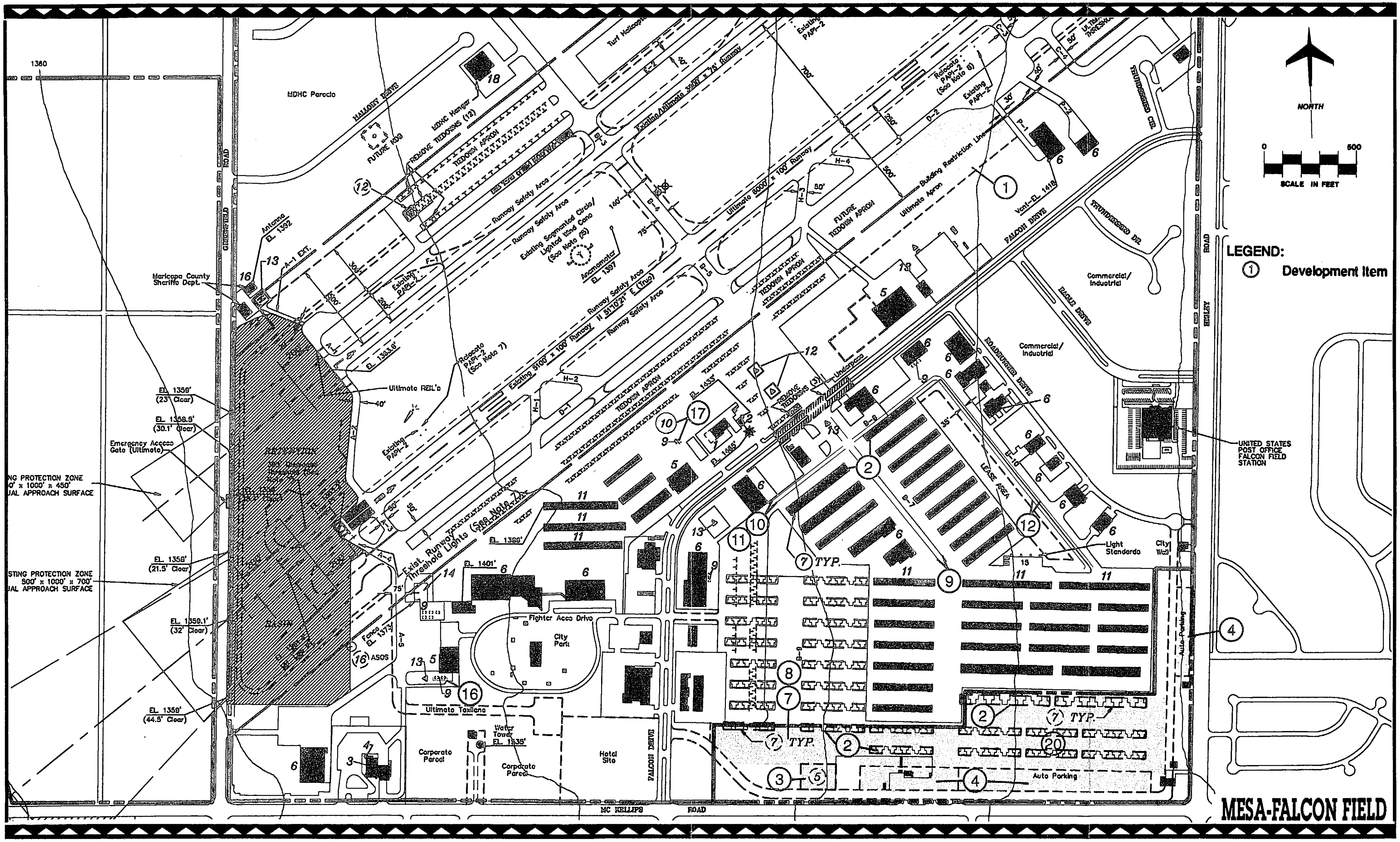

Exhibit 7H
STAGE III (FY 2003-2015)
LANDSIDE DEVELOPMENT PROGRAM